



CIO/NII  
Enabling Net-Centric Operations



# National Security Telecommunications Advisory Committee

Research and Development Exchange

Assistant Secretary of Defense for  
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*Connecting People With Information*



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# Transforming National Defense – Net-Centric Operations



## National Security Strategy

Transform America's national security institutions to meet the challenges and opportunities of the twenty-first century.



## National Defense Strategy

We will conduct network-centric operations with compatible information and communications systems, usable data, and flexible operational constructs.

Beyond battlefield applications, a network-centric force can increase efficiency and effectiveness across defense operations, intelligence functions, and business processes...

Transforming to a network-centric force requires fundamental changes in process, policy, and culture.



## National Military Strategy

...creation of a collaborative information environment that facilitates information sharing, effective synergistic planning, and execution of simultaneous, overlapping operations... on demand to defense policymakers, warfighters and support personnel.

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# CIO Vision and Mission

## Vision

### **Deliver the Power of Information**

*An agile defense enterprise empowered by  
access to and sharing of  
timely and trusted information*

## Mission

### **Enable Net-Centric Operations**

*Lead the Information Age transformation  
that enhances the  
Department of Defense's efficiency and effectiveness*



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# DoD CIO/NII Priorities

Lead the effort that will deliver the critical enabling capability required by the National Defense Strategy to **conduct Net-Centric Operations**

- Establish a true Information Age CIO
- Create a 21<sup>st</sup> century workforce of Information Pioneers
- Ensure “information” is recognized as a critical strategic asset
- Tell a clear and compelling story of where the IT Enterprise is headed and why





# Context for Net-Centric Operations

## Challenge – UNCERTAINTY

***“UNCERTAINTY is the defining characteristic of today’s strategic environment.”***

*(National Defense Strategy)*

- Adjust to an era of surprise and uncertainty

## Response – AGILITY

***“We have set about making US forces more AGILE and more expeditionary.”***

*(Quadrennial Defense Review)*

- Enterprise-wide: Battlefield Applications; Defense Operations; Intelligence Functions; Business Processes
- Emphasis Shift: From moving the user to the data – to moving data to the user

**Confront Uncertainty with Agility**



# Leverage the Power of Information

## ***NET-CENTRICITY:***

**People, processes, and technology working together to enable timely and trusted:**

- **ACCESS** to information
- **SHARING** of information
- **COLLABORATION** among those who need it

***Can Only Be Done on The Net!***





# Net-Centric Operations

## A Fundamental Shift

- Requires ENTERPRISE, not stovepipes
- Requires ACCESS, not exclusivity
- Requires TRUST
  - Trust in the System (availability)
  - Trust in the Information (assurability)
  - Trust in the Participants (identity)

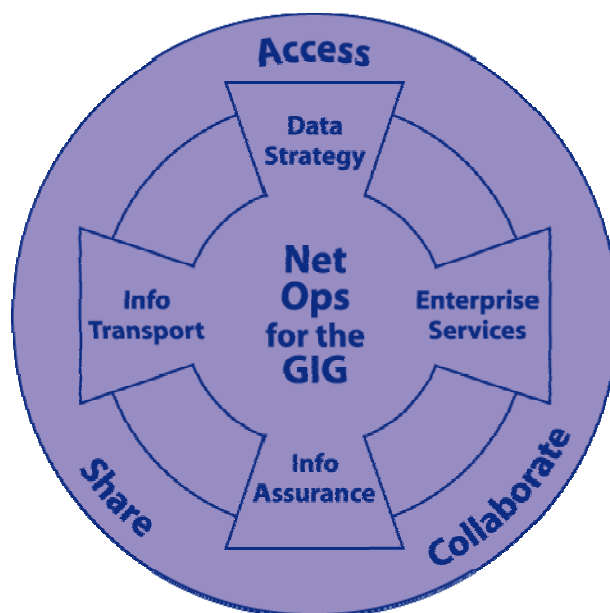
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# Net-Centric Framework



- **Data Strategy:**
  - How to “**share**” the data
- **Enterprise Services:**
  - How to “**access**” the data
- **Information Transport:**
  - How to “**move**” the data
- **Network Operations:**
  - How to “**operate and defend**” the GIG
- **Information Assurance:**
  - How to keep it all “**dependable**”

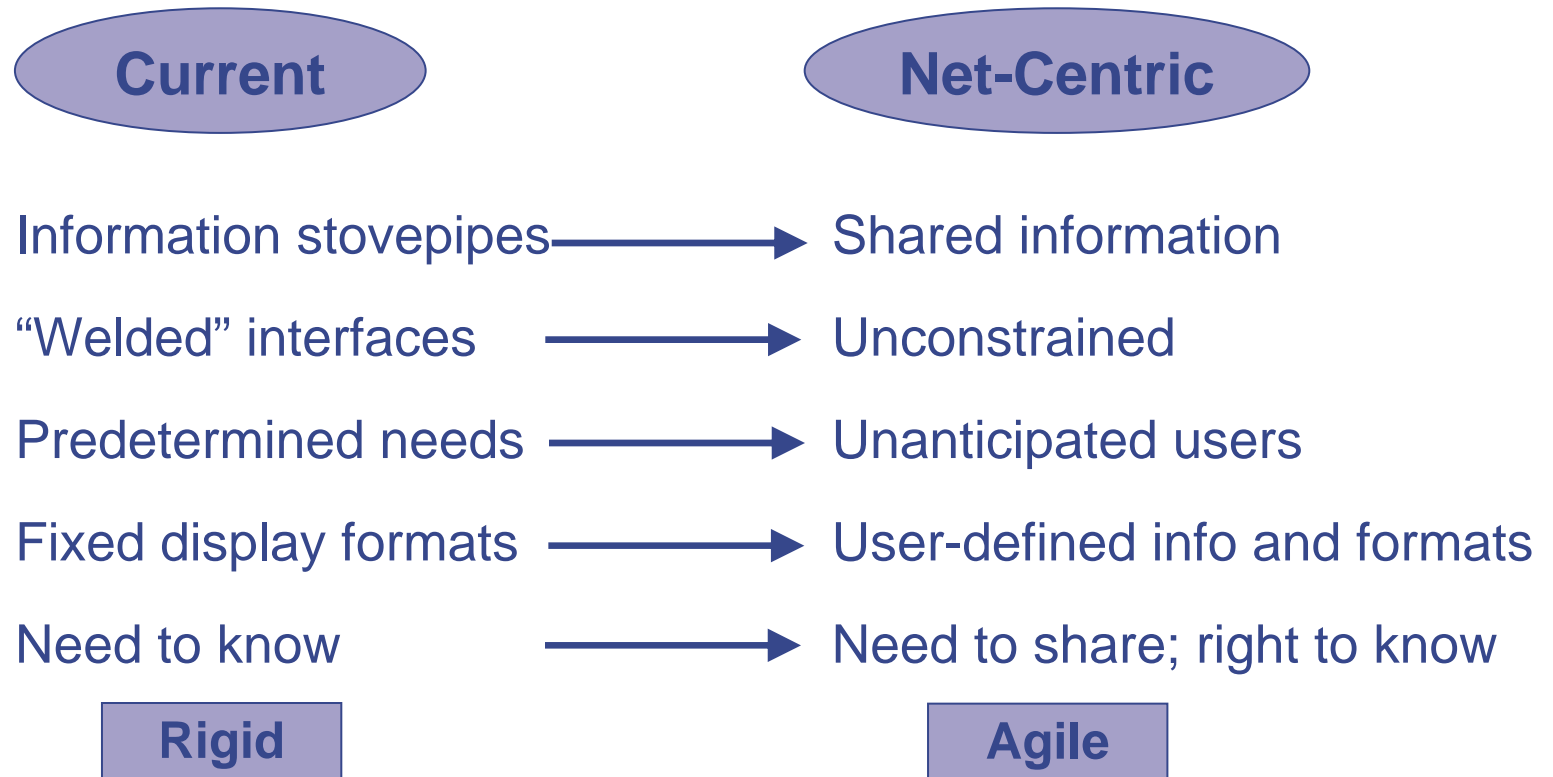
**Data: Discoverable, Accessible, Understandable**







# The Move to Net-Centricity



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# Critical Technology Enablers

## IPv6

- Supports proliferation of IP-addressed applications/devices, and “comm on the move”
- DoD Transition Strategy:
  - Tech Refresh

## VOIP

- Increases flexibility/capacity through broadband Internet connection; allows for converged voice and data on the same network
- DoD Initiatives:
  - Developing standards to end-to-end VOIP capability

## Satellite Communications

- Enables real time connectivity, high data rate, ISR exfiltration, and comm on the move
- DoD TSAT Program Restructure:
  - IOC 2013; 4 on orbit 2017

## Mobile Communications

- Provides network entry device for individual users at the tactical edge
- DoD JTRS Program:
  - Joint Program Office established
  - Form-factors being developed

## Service-Oriented Architecture

- Establishes easy-to-use services to access, share and collaborate
- DoD Strategy:
  - Acquire commercially managed service (NCES goal)

## Information Assurance

- Assures DoD's information, information systems, and information infrastructure
- DoD Strategy:
  - Fundamental shift from “walls and patches” to “secure from the start”
- DoD Initiatives:
  - Build IA architecture
  - Expand partnership with industry for IA R&D



# "I can get the information I need"

When I need it



Where I need it



How I need it

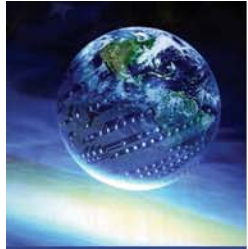


**Net-Centric Information Environment**

*Better Decisions Faster -- Decisive Actions Sooner*



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# Questions?